

REMARKS/ARGUMENTS

Applicant respectfully traverses and requests reconsideration.

The Examiner is thanked for the thorough examination and search of the subject..

All Claims are believed to be in condition for Allowance, and that is so requested.

Claims 1, 4, 6, 9, 22, 24, 25, 26, 35, 37, and 41 have been amended.

Claims 2, 3, 8, 12, 23, 27, 28, 36, 38, 39, 40, 42, and 43 have been canceled.

Status of Priority Applications. The second paragraph of page 1 of the Application has been amended to include the current status of referenced Application Numbers 10/309,429 and 10/075,778 as directed in the present action.

Objection to the Abstract. The Abstract of the Application has been amended to reduce the length to under 150 words, to remove the use of the claim language term “comprises” and to remove the indefinite phrase “or the like” as directed in the present action.

Claim 79 stands objected to because of the following informalities: In Claim 79, line2, replace the terms “after to”, with the terms –after the--. In Claim 79, line 4, replace the term “insulting”, with the term –insulating--. It appears that this may be a typographical error since the present application does not include a Claim 79.

Claims 1-5, 13, 16-20, 22-24, 31-33, 35-37, and 40-43 stand rejected under 35 U.S.C. 103(b) as being anticipated by Derby (U.S. Patent No. 3,576,387). Derby is

directed to a method of forming a heat shrinkable, electromagnetic shield for an electrical conductor. While the present action alleges that Derby discloses a ratio by weight of conductive materials to the resin of between 0.20-0.40 at column 4, lines 11-14, this does not appear to be correct. A careful review of this citing shows that column 4, lines 8-14, shows that Derby is therein disclosing **volume percent, not weight percent**. Where Derby does discuss weight percentages or weight ratios, the conductive loading is found to be in a range between 74% (Example 8) and 85% (Example 5). Note that in Examples 1-8, where percentage by weight of the conductive loading is discussed, Derby describes combining metal particles, a polymeric material, and a solvent such as toluene or 1-propanol. The solvent is subsequently evaporated away leaving only the metal particles and polymer. No where does Derby describe a metal particle loading of less than about 74%. Therefore, Derby is describing a minimum loading percentage that is much higher than the maximum loading percentage in the present invention.

Derby also discloses including metal particles of 10 micron maximum dimension (col. 4, lines 17-21) in a polymeric material. Derby does not mention micron conductive fiber, and the limitation of maximum dimension (10 microns) precludes fibers, which are typically much longer.

Derby also does not describe forming the composite (metal particle in polymer) material using extrusion. Where extrusion is described (column 3, lines 45-50), the context is only the formation of the non-conductive, shrinkable sleeve (tubular member). This tubular member may be formed by extruding, however, the conductive polymer that subsequently surrounds or lines the tubular member is not formed by extrusion. Rather,

the conductive polymer is coated onto the tubular member (see column 6, lines 34-55).

Claim 1 has been amended to now recite a conductive loaded, resin-based material comprising micron conductive metal powder with a ratio, by weight, of said micron conductive metal powder to the resin host is between about 0.20 and about 0.40. As discussed above, Derby does not address the formation of a conductive polymer with this relative weight percentage of loading. Amended Claim 1 is not anticipated by Derby under 35 USC 102(b). Further, remaining Claims 4-7, 9-11, and 13-21 recite additional patentably distinguishable limitations and should also not be anticipated by Derby under 35 USC 102(b).

Claim 22 has been amended to now recite a conductive loaded, resin-based material comprising micron conductive non-plated metal fiber with a ratio, by weight, of said micron conductive metal powder to the resin host is between about 0.20 and about 0.40. Derby does not address the formation of a conductive polymer with micron conductive fiber or with this relative weight percentage of loading. Amended Claim 22 is not anticipated by Derby under 35 USC 102(b). Further, remaining Claims 24-26 and 29-34 recite additional patentably distinguishable limitations and should also not be anticipated by Derby under 35 USC 102(b).

Claim 35 has been amended to now recite forming the shielded cable device through extruding a conductive loaded, resin-based material comprising micron conductive non-plated metal fiber with a ratio, by weight, of said micron conductive metal powder to the resin host is between about 0.20 and about 0.40. Derby does not address the formation of a conductive polymer by extruding or with micron conductive fiber or with this relative weight percentage of loading. Amended Claim 35 is not

anticipated by Derby under 35 USC 102(b). Further, remaining Claims 37, 41, and 44 - 45 recite additional patentably distinguishable limitations and should also not be anticipated by Derby under 35 USC 102(b).

Claims 1, 13-15, 22, 29-30, 35, and 44-45 stand rejected under 35 U.S.C. 103(b) as being anticipated by Flenniken (U.S. Patent No. 5,889,117). Flenniken is directed to a method to form a semi-conductive or insulating composition onto an electrical cable. Flenniken only discloses a composition formed by combining carbon black with ethylene/octane co-polymer and at least one additional polymer. Flenniken does not disclose the use of either micron metal powder or micron conductive fiber. Referring to the relevant remarks above, Flenniken does not incorporate all of the features of Amended Claims 1, 22, or 35. Amended Claim 1 is not anticipated by Flenniken under 35 USC 102(b). Further, remaining Claims 4-7, 9-11, and 13-21 recite additional patentably distinguishable limitations and should also not be anticipated by Flenniken under 35 USC 102(b). Amended Claim 22 is not anticipated by Flenniken under 35 USC 102(b). Further, remaining Claims 24-26 and 29-34 recite additional patentably distinguishable limitations and should also not be anticipated by Flenniken under 35 USC 102(b). Amended Claim 35 is not anticipated by Flenniken under 35 USC 102(b). Further, remaining Claims 37, 41, and 44 - 45 recite additional patentably distinguishable limitations and should also not be anticipated by Flenniken under 35 USC 102(b).

Claims 21 and 34 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Derby (U.S. Patent No. 3,576,387). Referring again to the relevant remarks above, Derby does not include all of the features of Amended Claims 1 and 22.

In particular, Derby does not teach or suggest the use of micron conductive power or the relative weight ratio as recited in amended Claim 1. Therefore, Claim 1 is not unpatentable over Derby under 35 USC 103(a) and Claim 21 includes additional patentably distinguishable limitations and should also not be unpatentable over Derby under 35 USC 103(a). In addition, Derby does not teach or suggest the use of micron conductive fiber or the relative weight ratio as recited in amended Claim 22. Therefore, Claim 22 is not unpatentable over Derby under 35 USC 103(a) and Claim 34 includes additional patentably distinguishable limitations and should also not be unpatentable over Derby under 35 USC 103(a).

Claims 6-12, 25-28, and 38-39 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Derby (U.S. Patent No. 3,576,387) in view of Fenton (U.S. Patent Publication No. 2002/0037376). Applicant references the relevant remarks above. Fenton is directed to a method of forming a heat shrinkable article. Fenton does not teach or suggest using micron metal power for the conductive loading as recited in Amended Claim 1 or non-plated micron metal fiber for the conductive loading recited in Amended Claim 22 or Claim 35. Therefore, Claim 1 is not unpatentable over Derby in view of Fenton under 35 USC 103(a), and Claims 6-12 include additional patentably distinguishable limitations and should also not be unpatentable over Derby in view of Fenton under 35 USC 103(a). Claim 22 is not unpatentable over Derby in view of Fenton under 35 USC 103(a), and Claims 25-28 include additional patentably distinguishable limitations and should also not be unpatentable over Derby in view of Fenton under 35 USC 103(a). Claim 35 is not unpatentable over Derby in view of Fenton under 35 USC 103(a), and Claims 38-39 include additional patentably

distinguishable limitations and should also not be unpatentable over Derby in view of Fenton under 35 USC 103(a).

Accordingly, Applicant respectfully submits that the claims are in condition for allowance and that a timely Notice of Allowance be issued in this case. The Examiner is invited to contact the below listed attorney if the Examiner believes that a telephone conference will advance the prosecution of this application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Douglas R. Schnabel". The signature is written in a cursive, flowing style.

Douglas R. Schnabel Reg. No. 47,927